



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/679,326

10/07/2003

Gerold Weinl

024445-399

2680

55694 7590 04/06/2007
DRINKER BIDDLE & REATH (DC)
1500 K STREET, N.W.
SUITE 1100
WASHINGTON, DC 20005-1209

EXAMINER

SHEEHAN, JOHN P

ART UNIT

PAPER NUMBER

1742

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|-----------|---------------|
|--|-----------|---------------|

3 MONTHS

04/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/679,326 | Applicant(s) WEINL ET AL. | |
| | Examiner John P. Sheehan | Art Unit 1742 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1/29/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 29, 2007 has been entered.

Claim Interpretation

2. It is the Examiner's position that transitional term, "comprising" used in applicants' claims (claim 1, line 2) is open terminology that leaves the claims open to any unrecited elements even in major amounts, MPEP 2111.03.

The transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501, 42 USPQ2d 1608, 1613 (Fed. Cir. 1997) ("Comprising" is a term of art used in claim language which means that the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.); *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 229 USPQ 805 (Fed. Cir. 1986); *In re Baxter*, 656 F.2d 679, 686, 210 USPQ 795, 803 (CCPA 1981); *Ex parte Davis*, 80 USPQ 448, 450 (Bd. App. 1948) ("comprising" leaves "the claim open for the inclu -

Art Unit: 1742

sion of unspecified ingredients even in major amounts ”).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 7 to 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

I. Claims 7 to 12 are indefinite. In claim 7, lines 7 and 8, it is recited that “the balance being one or more complex carbonitride phases” while in claim 7, line 9 it recited that the balance is Ti. In view of the 2 occurrences of the term “balance”, it is not clear what the balance is of the claimed alloy. For example, is the balance “one or more complex carbonitride phases” as recited in lines 7 and 8 or is the balance Ti as recited in line 9?

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1742

6. Claims 1 to 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weini et al. (Weini '590, US Patent No. 5,682,590).

Weini '590 teaches a titanium based carbonitride alloy for use as a cutting tool (Abstract and column 1, lines 9 to 14) having a composition that appears to overlap the instantly claimed alloy (column 2, lines 7 to 30).

The claims and Weini '590 differ in that Weini '590 does not teach the exact same composition as recited in the instant claims and Weini '590 is silent with respect to the C/(C+N) ratio and the amount of undissolved Ti(C, N) cores recited in the applicants' claims.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy proportions taught by Weini '590 overlap the instantly claimed proportions and therefore are considered to establish a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

“The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages”, In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

Regarding the C/(C+N) ratio and the amount of undissolved Ti(C, N) cores recited in the applicants' claims, it is the Examiner's position that, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy taught by the reference has a composition that overlaps the composition recited in the instant claims and is made by a process which is substantially the same, if not the same, as applicants' process of making the instantly claimed alloy. In view of this, the alloy taught by the reference would be expected to possess all the same properties as recited in the instant claims, including the C/(C+N) ratio and the amount of undissolved Ti(C,N) cores recited in the applicants' claims, In re Best, 195 USPQ, 430 and MPEP 2112.01.

"Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.' In re Spada, 15 USPQ2d 655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best, 195 USPQ 430, 433 (CCPA 1977)." (emphasis added by the Examiner) see MPEP 2112.01.

Allowable Subject Matter

7. Claims 7 to 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
8. The following is a statement of reasons for the indication of allowable subject matter: Claims 7 to 12 are indicated as allowable in that these claims recite the

Art Unit: 1742

transitional term, "consisting of" and thus are limited to the components recited in the claims and are closed to any additional components. Thus, the alloy composition recited in claims 7 to 12 preclude the Ni component required in Weinl '590's alloy.

Response to Arguments

9. Applicant's arguments filed January 29, 2007 have been fully considered but they are not persuasive.

Applicants, citing Weinl's Example 1, argue that Weinl does not contain enough Ti(C,N) to result in an amount of undissolved Ti(C,N) core between 26 and 37 vol% as recited in applicants' claims. The Examiner is not persuaded. The Examiner is no longer relying on a combination of Weinl's Example 1 and Weinl's column 2, lines 7 to 30 in making this rejection. Instead, in making the rejection based on Weinl the Examiner is now relying only on Weinl's disclosure at column 2, lines 7 to 30, which discloses the full breadth of Weinl's alloys. As set forth in the statement of the rejection, Weinl's disclosure at column 2, lines 7 to 30 overlaps the instantly claimed proportions and therefore is considered to establish a prima facie case of obviousness.

Applicants state that Alloy B (Example 2) of the instant specification is a composition that is encompassed by Weinl's disclosure and that the amount of undissolved Ti(C,N) core is only 20.3 vol% of the hard constituents while on the other hand the instant claims require an amount of undissolved Ti(C,N) cores to be between 26 and 37 vol% of the hard constituents. Applicants then argue that the Examiner's "assertion of inherency is improper because not every disclosure in Weinl '590

Art Unit: 1742

necessarily results in the claimed amount of undissolved Ti(C,N) ". This is not persuasive. The rejection is not based on the instantly claimed composition being encompassed by Weini '590, that is the rejection is not based on 35 USC 102. Instead, the rejection is based on 35 USC 103 and the fact that the applicants' claimed composition and Weini '590's composition overlap and that Weini '590's composition that overlap applicants' claimed composition would be expected to have the same properties as recited in the instant claims. The Examiner is not taking the position that everyone of the alloy composition possibilities taught by Weini '590 whether or not they overlap applicants' claimed alloy possess the alloy properties recited in the instant claims.

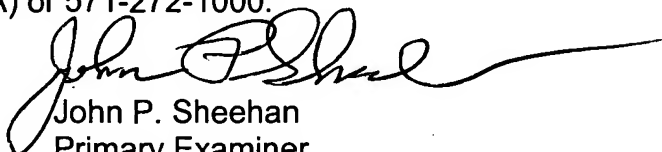
On pages 8 and 9 of their response applicants present arguments based on thermodynamic simulations using software available at an internet website. These arguments are not persuasive in that they are based on the contents of an internet website. The contents of such a website including the software that is available are subject to change. In view of this, there is no way to make the applicants' methodology used in the thermodynamic simulations, which form the basis of applicants' arguments, a part of the permanent application record. Without becoming part of the permanent application record such calculations and arguments based on such calculations are given little, if any weight.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John P. Sheehan
Primary Examiner
Art Unit 1742

jps